ABSTRACT OF THE DISCLOSURE

A simple and convenient analyzing apparatus is provided which easily, conveniently, and efficiently collects a material in the state of fine particles adhered to a target object, extracts the object to be analyzed, and analyzes the extracted object. An apparatus for detecting fine particles in a gas which sucks the gas under measurement from the target object by using a suction pump, extracts the fine particles contained in the gas under measurement, and performs measurement by using a spectrometer is embodied such that an inertial impactor for collecting the fine particles having diameters not less than a specified particle diameter is disposed upstream of the spectrometer, the fine particles are collected in the fine particle collector of the inertial impactor, the collector containing the collected fine particles is heated such that the collected fine particles are vaporized into a gas, and the vaporized fluid to be examined is supplied to the spectrometer to be measured thereby.